

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously presented) A method of fabricating an organic light-emitting device, which method comprises the steps of:

providing a substrate comprising a first electrode and a glass or a plastics material;

either forming by self-assembly at least one polymer layer over the first electrode and forming other than by self-assembly at least one layer of organic light emissive material over the at least one polymer layer; and forming a second electrode for the device over the at least one layer of organic light emissive material;

or forming other than by self-assembly at least one layer of organic light emissive material over the first electrode and forming by self-assembly at least one polymer layer over the at least one layer of organic light emissive material; and forming a second electrode for the device over the at least one polymer layer; and

removing physisorbed water from the surface of the substrate prior to forming the at least one polymer layer, wherein the physisorbed water is removed by heating.

2. Canceled

3. Canceled

4. (Previously presented) A method according to claim 1, which method further comprises forming a coupling layer prior to forming the at least one polymer layer.

5. (Original) A method according to claim 4, wherein the coupling layer is formed by silylating the substrate.

6. (Previously presented) A method according to claim 1, which method further comprises preparing the substrate surface such that the surface charge of the substrate is pH independent.

7. (Previously presented) A method according to claim 1, wherein the substrate comprises amino groups, the method further comprises quaternising amino groups to form positively charged quaternised species on the surface.

8. (Previously presented) A method according to claim 1, wherein when the substrate comprises thiol groups, the method further comprises the step of oxidizing thiol groups to form negatively charged species on the surface.

9. Canceled

10. (Previously presented) A method according to claim 1, wherein the plastics material comprises one or more of a polyester, a polycarbonate or a poly(ether amide).

11. (Previously presented) A method according to claim 1, wherein the at least one self-assembled polymer layer comprises one or more pairs of co-operating sub-layers.

12. (Original) A method according to claim 11, wherein the one or more pairs of co-operating sub-layers interact by attractive forces, each sub-layer being dissimilar to the other.

13. (Original) A method according to claim 12, wherein one sub-layer of a pair is negatively charged and the other sub-layer of the pair is positively charged.

14. (Original) A method according to claim 11, wherein the one or more pairs of co-operating sub-layers interact by donor/acceptor interaction.

15. (Original) A method according to claim 14, wherein the donor/acceptor interaction is provided by hydrogen bonding.

16. (Previously presented) A method according to claim 11, wherein each sub-layer of the co-operating pairs of sub-layers is 0.3-2 nm thick.

17. (Previously presented) A method according to claim 1, wherein the at least one polymer layer is 0.3-20 nm thick.

18. (Previously presented) A method according to claim 1, wherein the organic material comprises a conjugated polymer and/or a low molecular weight compound.

19. (Original) A method according to claim 18, wherein the organic material comprises a semi conductive conjugated polymer.

20. (Original) A method according to claim 19, wherein the organic material comprises PPV or a derivative thereof.

21. (Previously presented) A method according to claim 1, wherein the at least one layer of organic light-emissive material is 30-1000 nm thick.

22. (Previously presented) A method of fabricating an organic light-emitting device which method comprises the steps of:

forming a first electrode for the device over a substrate, wherein said substrate comprises a glass or a plastics material;

either removing physisorbed water by heating from the surface of the first electrode, forming a coupling layer, forming, by self-assembly, at least one polymer layer over the first electrode, and forming at least one layer of organic light emissive material over the at least one polymer layer;

or forming at least one layer of organic light emissive material over the first electrode, removing physisorbed water by heating from the surface of the at least one organic light-emissive material, forming a coupling layer, and forming, by self-assembly, at least one polymer layer over the at least one layer of light emissive material; and forming a second electrode for the device over the at least one layer of light emissive material.

23. (Previously presented) A method according to claim 22, wherein the at least one polymer layer has an electronic and/or optical property that varies across the thickness of the layer.

24. (Original) A method according to claim 23, which method additionally comprises the step of processing the at least one polymer layer to form the spatial variation in the electronic and/or optical property.

25. (Original) A method according to claim 24, wherein the at least one polymer layer comprises a conjugated material and the step of forming the spatial variation in the electronic and/or optical property comprises reducing the degree of conjugation of the conjugated material.

26. (Currently amended) A method according to claim 24, wherein the step of processing the at least one polymer layer comprises exposing the polymer layer to a reactive agent to promote a chemical reaction in the at least one polymer layer.

27. (Original) A method according to claim 26, wherein the reaction is an oxidation or reduction reaction.

28. (Previously presented) A method according to claim 26, wherein the reactive agent is an oxidizing agent.

29. (Previously presented) A method according to claim 26, wherein the agent is oxygen.

30. (Previously presented) A method according to claim 26, wherein the agent is in the form of a plasma.

31. (Original) A method according to claim 23, wherein the step of forming the at least one polymer layer comprises forming the polymer layer in a state in which the electronic and/or optical property varies across its thickness.

32. (Original) A method according to claim 31, wherein the polymer layer is deposited in a series of sub-layers.

33. (Previously presented) A method according to claim 31, wherein the polymer layer is deposited in the form of a series of bi-layers each containing two sub-layers of different materials.

34. (Previously presented) A method according to claim 31, wherein the polymer layer is deposited so as to comprise a series of sub-layers of a material which each differ in the electronic and/or optical property.

35. (Original) A method according to claim 34, wherein the sub-layers of a material are graded in the said property across the thickness of the polymer layer.

36. (Previously presented) A method according to claim 34, wherein the material comprises poly(styrenesulphonic acid).

37. (Previously presented) A method according to claim 34, wherein the sub-layers are doped so as to achieve the difference in the electronic and/or optical property.

38. A method according to claim 36, wherein in at least some of the sub-layers the poly(styrenesulphonic acid) is doped with poly(ethylenedioxythiophene).

39. (Previously presented) A method according to claim 23, wherein said property is an energy level or an energy level distribution.

40. (Original) A method according to claim 39, wherein said property is ionisation potential.

41. (Previously presented) A method according to claim 23, wherein in a direction from the first electrode to the light emissive layer the ionisation potential of the polymer layer varies away from the conduction band of the first electrode.

42. (Previously presented) A method according to claim 23, wherein in a direction from the first electrode to the light emissive layer the ionisation potential of the polymer layer varies towards the HOMO level of the light emissive layer.

43. (Previously presented) A method according to claim 23, wherein the optical gap of the light emissive layer varies in a direction from the first electrode to the second electrode.

44. Canceled

45. Canceled

46. Canceled

47. (Previously presented) An organic light emitting device, obtainable according to a method as defined in claim 1.

48. (Previously presented) An organic light emitting device comprising: at least one layer of organic light-emissive material between a first electrode and a second electrode, the at least one organic light-emissive material having been formed other than by self-assembly; and at least one polymer layer between one of the first and second electrodes and the at least one organic light-emissive material, the at least one polymer layer being formed by self-assembly, wherein the at least one polymer layer has an electronic and/or optical property that varies across the thickness of the layer.

49. Canceled

50. (Previously presented) A method of fabricating an organic light-emitting device, which method comprises the steps of:

providing a substrate comprising a first electrode and a glass or a plastics material;

either forming by self-assembly at least one polymer layer over the first electrode and forming other than by self-assembly at least one layer of organic light emissive material over the at least one polymer layer; and forming a second electrode for the device over the at least one layer of organic light emissive material;

or forming other than by self-assembly at least one layer of organic light emissive material over the first electrode and forming by self-assembly at least one polymer layer over the at least one layer of organic light emissive material; and forming a second electrode for the device over the at least one polymer layer;

wherein the at least one self-assembled polymer layer comprises one or more pairs of co-operating sub-layers, and wherein the one or more pairs of co-operating sub-layers interact by donor/acceptor interaction.

51. (Previously presented) A method of fabricating an organic light-emitting device which method comprises the steps of:

forming a first electrode for the device over a substrate, wherein said substrate comprises a glass or a plastics material;

either removing physisorbed water from the surface of the first electrode, forming a coupling layer, forming, by self-assembly, at least one polymer layer over the

first electrode, and forming at least one layer of organic light emissive material over the at least one polymer layer;

or forming at least one layer of organic light emissive material over the first electrode, removing physisorbed water from the surface of the at least one organic light-emissive material, forming a coupling layer, and forming, by self-assembly, at least one polymer layer over the at least one layer of light emissive material; and

forming a second electrode for the device over the at least one layer of light emissive material, wherein the at least one polymer layer has an electronic and/or optical property that varies across the thickness of the layer.